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Abstract:

A touch sensor using a Hall IC is provided. To this end, in a cantilever mechanism 15 of a parallel link by two plate springs 16, a coupling member 18 on the fixed side is fixed to a supporting block 24 which penetrates through the center of a plate spring 16 on a lower side 5 and uprightly provided on a pedestal 22. A movable portion 28 on the free end side is a lightweight coupling member 19 provided by bend-processing an aluminum thin plate, to which a rare-earth magnet 25 is adhered. An elastic part 20a of a Hall IC supporting member 20 is fixed to the coupling member 18 on the fixed side, and a rigid part 20b with a rib 17a is supported by an adjusting rod 36 to fine-adjust relative position of a Hall IC 26 10 provided on the free end with respect to the magnet 25. Elastic wire materials 38s are fixed to the Hall IC supporting members 20s which hold at a free end 38b the self-weight of the movable portion 28, and abutted with a lower surface 40a of a bush on the inner surface of a housing 12, so that the movable portion 28 is stabilized in its position. A light load of 0.5 gf or less activates an anvil 34, and the Hall IC 26 detects a minute displacement of 0.1 mm or 15 less of the magnet 25, in order to light up a signal light 14.